



USER'S GUIDE

4500

DIGITAL SATELLITE RECEIVER

Panarex Electronics

Sun Valley, California, U.S.A.



IMPORTANT SAFETY INSTRUCTIONS

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and servicing instructions in the literature accompanying the appliance.

WARNING

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION

CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE MANUFACTURER COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

NOTE TO CATV SYSTEM INSTALLER

THIS REMINDER IS PROVIDED TO CALL THE CATV SYSTEM INSTALLER'S ATTENTION TO ARTICLE 820-40 OF THE NEC THAT PROVIDES GUIDELINES FOR PROPER GROUNDING AND, IN PARTICULAR, SPECIFIES THAT THE CABLE GROUND SHALL BE CONNECTED TO THE GROUNDING SYSTEM OF THE BUILDING, AS CLOSE TO THE POINT OF CABLE ENTRY AS PRACTICAL.

CAUTION

The AC power cord provided with this product is polarized (one blade wider than the other).

To prevent electrical shock, match wide blade of plug to wide slot, fully insert the AC plug into a standard 120V~, 60Hz polarized outlet.

IMPORTANT SAFETY INSTRUCTIONS

NOTE

Never connect the plug to an electrical source other than one providing 120V~, 60Hz power. Use only the attached power cord. If the polarized AC cord does not fit into a non-polarized outlet, do not cut or file the blade. You are responsible for having the obsolete outlet replaced with a polarized outlet.

If you feel a static discharge when touching the unit, and the unit does not function, simply unplug the unit from the outlet. When you plug the unit back in, it should work normally.

Do not install power cords near any heating element or cooking appliances.

Important Safeguards

IMPORTANT SAFEGUARDS

PLEASE READ ALL THESE INSTRUCTIONS REGARDING YOUR SATELLITE RECEIVER EQUIPMENT AND RETAIN FOR FUTURE REFERENCE. FOLLOW ALL WARNINGS AND INSTRUCTIONS MARKED ON THE TV RECEIVER.

- 1 Read all of these instructions.
- 2 Save these instructions for later use.
- 3 Unplug this Satellite Receiver equipment from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 4 Do not use attachments not recommended by the Satellite Receiver equipment manufacturer as they may result in the risk of fire, electric shock or other personal injury.
- 5 Do not use this Satellite Receiver equipment near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, or the like.
- 6 Do not place this Satellite Receiver equipment on an unstable cart, stand, or table. The Satellite Receiver equipment may fall, causing serious injury to a child or adult, and serious damage to the equipment. Use only with a cart or stand recommended by the manufacturer, or sold with the Satellite Receiver equipment. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
- 6A An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
- 7 Slots and openings in the cabinet and the back or bottom are provided for ventilation and to ensure reliable operation of the Satellite Receiver equipment; and to protect it from overheating, these openings, must not be blocked or covered. The openings should never be blocked by placing the Satellite Receiver



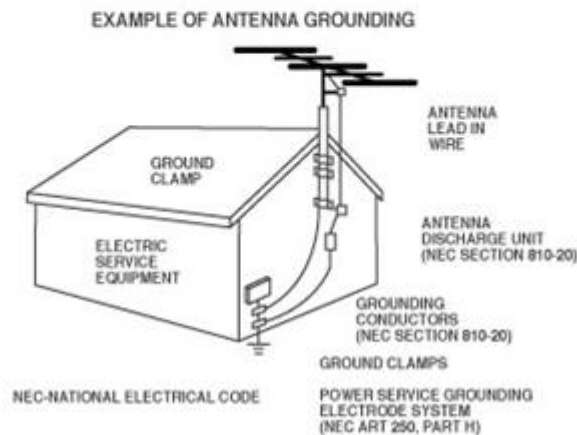
IMPORTANT SAFETY INSTRUCTIONS

equipment on a bed, sofa, rug, or other similar surface. (This equipment should never be placed near or over a radiator or heat register.) This Satellite Receiver equipment should not be placed in a built-in installation, such as a bookcase, unless proper ventilation is provided.

- 8 This Satellite Receiver equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your Satellite Receiver dealer or local power company.
 - 9 This Satellite Receiver equipment is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
 - 10 Do not allow anything to rest on the power cord. Do not locate this Satellite Receiver equipment where the cord will be abused by persons walking on it.
 - 11 Follow all warnings and instructions marked on the Satellite Receiver equipment.
 - 12 For added protection for this Satellite Receiver equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the equipment due to lightning and power-line surges.
- Important Safeguards**
- 13 An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.
 - 14 Do not overload wall outlets and extension cords, as this can result in fire or electric shock.
 - 15 Never push objects of any kind into this Satellite Receiver equipment through openings, as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the Satellite Receiver equipment.
 - 16 Do not attempt to service this Satellite Receiver equipment yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
 - 17 Unplug this Satellite Receiver equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - (a) When the power-supply cord or plug is damaged or frayed.
 - (b) If liquid has been spilled, or objects have fallen into the Satellite Receiver equipment.
 - (c) If the Satellite Receiver equipment has been exposed to rain or water.

IMPORTANT SAFETY INSTRUCTIONS

- (d) If the Satellite Receiver equipment does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the TV receiver to its normal operation.
 - (e) If the Satellite Receiver equipment has been dropped or the cabinet has been damaged.
 - (f) When the Satellite Receiver equipment exhibits a distinct change in performance - this indicates a need for service.
- 18 When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
 - 19 Upon completion of any service or repairs to this Satellite Receiver equipment, ask the service technician to perform safety checks to determine that the Satellite Receiver is in a safe operating condition.
 - 20 If an outside antenna or cable system is connected to the Satellite Receiver receiver, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA N0.70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.



IMPORTANT SAFETY INSTRUCTIONS

FCC RF INTERFERENCE STATEMENT

NOTE :

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio, TV technical for help.
- Only shielded interface cable should be used.

Finally, any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the users authority to operate such equipment.

PREFACE

1. OVERVIEW

1. WHAT IS THIS PRODUCT FOR?
2. WHAT FEATURE DOES THIS PRODUCT OFFER?
3. FOR YOUR SAFETY
4. PLEASE CHECK THE FOLLOWING ACCRSSORIES ARE ENCLOSED
5. HOW TO USE THE REMOTE CONTROL KEY
6. FRONT PANEL
7. REAR PANEL
8. CONNECTION DIAGRAM

2. OPERATING

1. Start Up
2. Installation
3. Edit Channel
4. User Setup
5. System Tools
6. Game
7. USB
8. Channel List
9. Program Guide
10. Audio change
11. Multi Pictures
12. Recall the Favorite channel

3. Optional Items

1. UHF Remote Control Kit (Optional)
2. Universal III Remote Control (Optional)

4. SPECIFICATION

5. TROUBLE SHOOTING

1. OVERVIEW

1. WHAT IS THIS PRODUCT FOR?

This product is designed for using Digital Satellite and allows you to enjoy a lot of broadcasting whenever you want to watch it anytime. By simply pressing the button of the remote control unit, the vivid picture and life –like sound of digital broadcasting that your TV portrays through this product, allows you to watch whatever channel you wish of the digital broadcasting.

Through this manual you will notice that the operation is easy to use.

This manual will help you get the most from this product and guide you through Installation, channel selection and many other functions.

In case you experience any difficulties to use this product, please consult the relevant section of this manual.

From now on, enjoy digital broadcasting with digital satellite receiver!!!

2. WHAT FEATURE DOES THIS PRODUCT OFFER?

2.1 General Features

- USB PVR ready (FAT16/FAT32, Format function, Recording, Playback, EPG Time record, Time shifted recording)
- USB 2.0 Host 2 Interface (Front and Rear) - JPEG Photo Album, MP3, Firmware Update
- 10days EPG (Electronic Program Guide)
- Full Compliant of MPEG-2 Digital & DVB broadcasting
- 950-2150MHz Input Frequency (IF Loop Throughout)
- Variable Input Symbol Rate (1-45Msps)
- Multi Language OSD
- Automatic PAL/NTSC Conversion
- Fast Channel Change & Scan
- 5,000 Channel TV & Radio Program
- Flexible reception of SCPC & MCPC from C/Ku-Band Satellites
- S/PDIF (Digital Audio or Dolby AC3 Stream out)
- Timer Function (Automatic Turn On/Off by Setting Function)
- 256 Colors (Graphic User Interface) Number
- PIG (Picture In Graphic), Multi-Picture, Zoom function
- 5 Favorite List & 100 programs per each
- Powerful Channel Editing Function
 - Sorting: Alphabetic, Satellite, TP order, FTA/Scramble, Parental Lock
 - Move, Delete, Favorite Edit
 - Parental Lock, Channel Rename, Channel Skip
- Manual PID/Satellite & TP/Network Scan

- Blind Scan
- Satellite Scan – Simultaneous Scan with various Satellites
- DiSEqC 1.2 & USALS Compatible
- Comparable of Setting the Frequency for SMATV System
- Software Upgrade via USB Memory Stick or RS232C (Receiver to Receiver, PC to Receiver)
- UHF- Ready (U-50 Kit Optional)
- Universal 3 Remote Control (optional)

2.2 Additional Features

- RTC (Real Time Clock)
- Component Out (YPbPr)
- Integrated USB2.0 (Host), Support to USB Memory Stick
- Multi pictures (Max. 9)

3. FOR YOUR SAFETY

- Do not open the cover. It may cause malfunction or electric shock.
- When you do not use the product for a long time, please pull the power cord out from the outlet.
Also do not use a damaged power cord that may cause fire or electric shock.
- Do not use install the product in a humid area.
- Do not cover the product or place anything heavy on the product, Keep clear space around the product for sufficient ventilation.
- Avoid using spray or liquid materials around the product. Don't make other materials come into the inside the product.
- Do not connect to modify cables when the product is plugged in.
- Socket-outlet shall be installed near the equipment and shall be easily accessible.
- Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases shall be placed on the apparatus.

4 PLEASE CHECK THE FOLLOWING ACCRSSHORIES ARE ENCLOSED

- User manual 1 set
- Remote Control Unit 1 Set
- Batteries (AAA Type) 2EA
- A/V Cable

Note !

If any of the accessories listed above are missing, Please contact the sales outlet where this product was initially purchased.

5. HOW TO USE THE REMOTE CONTROL KEY

Key	Function
	Turns the equipment on/off
	Sounds Off/On
TV/RAD	Toggles between TV and Radio operation
TV/SAT	Toggles between TV & SAT operation
SIG	Shows signal / quality level
	Multi Picture (Max 9 CH)
TIME	Shows current Time
PAUSE	Holds the picture or release the pause
AUDIO	Selects audio mode (mono / Stereo, left only and right only).
FAV	Enter favorite program or Exit from Favorite Program
INFO	Shows channel information, such as channel Number, channel name, Frequency, Polarity, Symbol Rate, Video PID, Audio PID and PCR PID
EPG	Shows program information
LAST	Returns to previous program
MENU	Enters main menu screen. Or exits menu screen
	Execute page down function in the menu
	Execute page up function in the menu
EXIT	Moves to upper menu
	Channel up/down Moves the cursor upward/downward in the menu screen
OK	Shows Channel list. Confirms selection
VOL 	Volume down/up Change the value of a selected line
0~9	Changes channel directly. Controls the numerical operation. Input the alphabet in the name edit screen
HDD	Enter Hard Disk (Record) menu
SAT	Enter programmed satellite list
Find	Find Channel
Zoom	Zoom Screen
PVR i	Information about PVR
Sleep	Sleep timer



6. FRONT PANEL



1. POWER
To put power in and out of standby mode.
2. Menu
To enter main menu screen.
3. VOLUME
To make volume up and down.
Moves the cursor upward/downward in the menu screen
4. OK
To confirms selection, To show Channel List
5. CHANNEL
To move up and down in the menus, To change channels.
6. Exit
To move to upper menu.
7. Display
To show channel number, error messages, remote control commands and time in standby mode.
8. USB
Connect UBS Port.

7. REAR PANEL



NO	NAME	FUNCTION
1	LNB IN	IF Loop-through output to 2 nd receiver
2	LNB OUT	IF INPUT from LNB to receiver
3	S/PDIF	For digital audio output
4	VIDEO	Composite Video Output
5	AUDIO-R	Right Audio Output
6	AUDIO-L	Left Audio Output
7	UHF	Option for UHF Remote Control lit
8	RS 232	Connect Serial Port
9	USB2.0	Connect UBS Port
10	Y	Component Video Output
11	Pb	Component Video Output
12	Pr	Component Video Output
13	TV OUT	Output to TV
14	TV IN	Input from terrestrial TV antenna
15	AC SWITCH	AC Power ON/OFF (Reset Function)

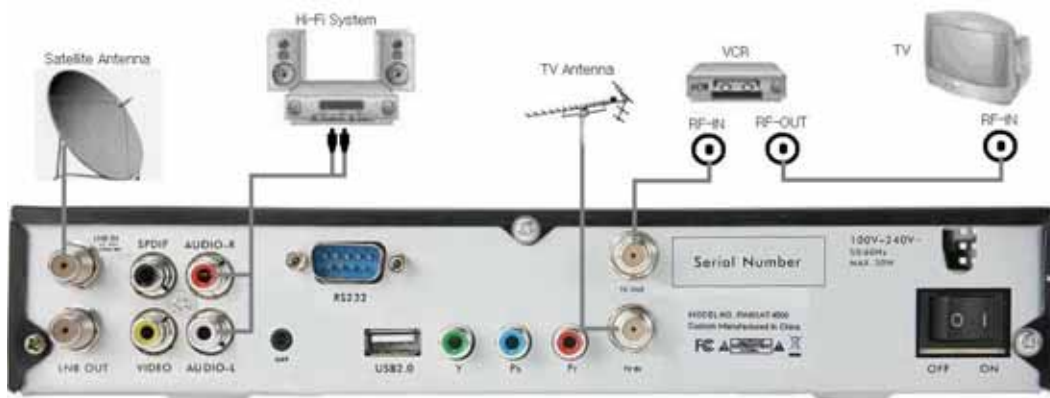
8. CONNECTION DIAGRAM

Connecting to digital TV using YPbPr port.

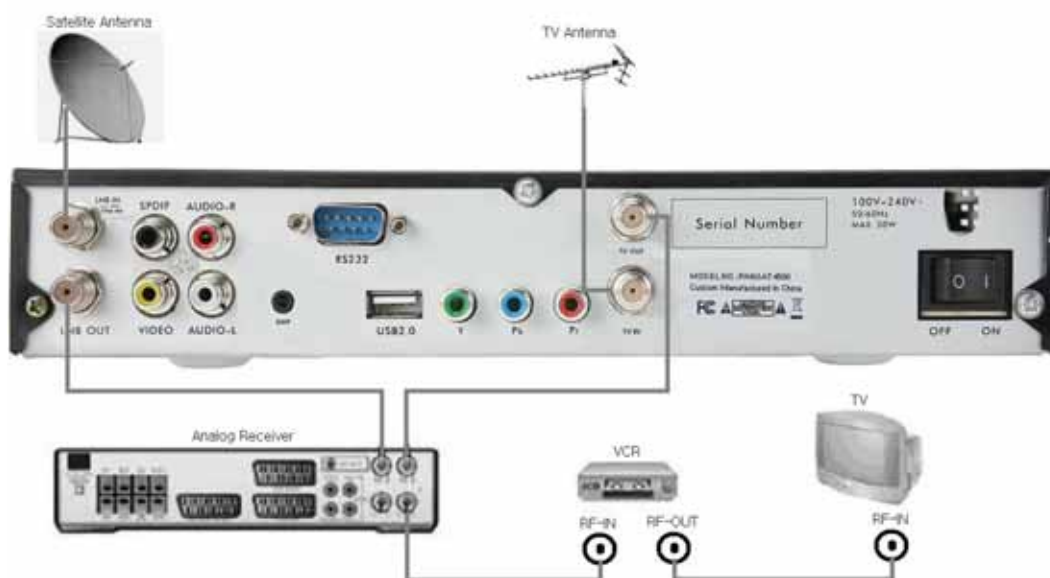


- Connect STB's YPbPr output and Audio L/R output to a YPbPr in and Audio L/R in of TV
- Please refer TV's user manual for detailed YPbPr connection method.

Connecting TV and VCR with RF Cable (Single Antenna)



Connecting TV to analogue receiver and VCR with RF cable



2. OPERATING

1. Start Up

If you are watching TV through the RF-cable, you need to adjust the Channel number. The type of TV and Channel numbers are set to NTSC and Channel 3 at the factory.

Please follow the brief procedure below and watch the satellite programs.

- 1) Select the User Setup and confirm Language
- 2) Select the Installation and antenna setup
- 3) Adjust LNB configuration per each satellite
- 4) Execute scanning to find program
- 5) Exit from installation after all programs are searched.

1.1 Language

When the receiver is turned on for the first time, main menu is appeared as below photo.

You can find desired menu by using ◀ ▶ ▲ ▼ key and select desired menu by press [OK] key.



Select the user setup and press [OK] or ▶ to enter Language menu as below photo and can select the desired language by using ◀ ▶ or [OK] key to confirm it.

* This Receiver supports 10 languages.

English, French, German, Italian, Spanish, Portuguese, Russian, Turkish, Polish and Arabic

2. Installation

Press the [OK] or ▶ key to enter Installation menu as below photo and use common password "0000". Parental control and channel edit are not accessible until satellite channel scanned and saved. Press the [OK] key on Antenna setup menu and it is appeared on screen as below second photo.



2.1 Antenna Setup

In this section you could know how to operate Antenna set-up.

2.1.1 Satellite List

- Press [OK] key on Satellite List in Antenna Setup menu to enter Satellite List.

When you enter to Satellite List menu, there will display the screen.

- Press [Red] key to enter Edit Satellite where you can edit Satellite name and longitude



- Press [Green key to enter Add Satellite menu





- Press [Blue] key, you will be asked “Are you sure to delete?”. Select “yes” to delete the Satellite that highlight focus on. Select “No” to cancel the operation

2.1.2 Satellite

You can find selected Satellite list by using ◀ ▶ or [OK] key and confirm it by [OK] key.

2.1.3 LNB Frequency

Select LNB type using ◀ ▶ keys and ▲ ▼ keys. And confirm it by [OK] key.

Option is 5150 / 5750 / 5950 / 9750 / 10000 / 10050 / 10450 / 10600 / 10700 / 10750 / 11250 / 11300 / 5150-5750 / 5750-5150 / Universal (9750-10600)

2.1.4 Transponder

Select a specific transponder by using ◀ ▶ keys or [OK] key and confirm it by [OK] key.

2.1.5 DiSEqC 1.0 or 1.1

Select a specific setting for DiSEqC 1.0 or 1.1 by using ◀ ▶ keys or [OK] key and confirm it by [OK] key.

Option is Disable / LNB1 / LNB2 / LNB3 / LNB4 at DiSEqC 1.0.

Option is Disable / LBN1 to LNB16 at DiSEqC 1.1.

2.1.6 Legacy Switch

Select a specific setting for Legacy Switch by using ◀ ▶ keys or [OK] key and confirm it by [OK] key.

2.1.7 22Khz

In case you are using a Dual LNB or two antennas connected to a 22KHz tone switch box, make 22KHz tone switch “ON” or “OFF” to select a LNB or an antenna.

2.1.8 Positioner Setup

It is used to set the DiSEqC 1.2 motor & USALS

If you have no positioner equipment, select “Disable”.

1) DiSEqC 1.2

If you select "DiSEqC1.2", "Local Longitude / Local Latitude" is not available.

- Press ◀ ▶ key or [OK] key to change satellite or transponder.
- Position No.& Save: You can press ◀ ▶ key or number key to select or input Position NO.
- Go to X: Press [OK] key to open a list. You can go to X or go to reference.
- After select "Satellite" and "Position No & Save", you can move the highlight to "West/Save/East" line and press ◀ ▶ key to move the dish and press [OK] to save the position.
- Move the highlight to "Recalculation" and press [OK] key to recalculate.

2) USALS

Set the satellite's longitude and local longitude / local latitude, USALS can move dish automatically.

- Local Longitude
Please input Local Longitude by numeric keys and adjust E.W by using ◀ ▶ keys
- Local Latitude
Please input Local Longitude by numeric keys and adjust S.N. by using ◀ ▶ keys
- Motor Setting
Switching the satellite can move the dish to the right place
- Limit Setup
When you set "limit setup" to "West Limit/ East Limit", you can move the dish to west or east by pressing ◀ ▶ key manually. When you are moving to the target place, press [OK] key to save the point.

2.2 Satellite Scan



Scan all the listed transponders in a selected satellite.

In "Satellite" item, press ◀ ▶ key to select satellite, which you to scan. Otherwise, press [OK] key can open the "satellite list" for you to select directly.

- Scan Option
Press ◀ ▶ key to select scans all channels or just scans free channels.

- Scan Channel
Press ◀ ▶ key to select scans TV + Radio Channels, or just TV channels or just Radio channels.
- Network Scan
Press ◀ ▶ key to select whether network search or not.
- Scan Mode
Press ◀ ▶ key to select scans "Normal Scan" or "Blind Scan"
- Search
Press [OK] to start search

2.3 Multi Satellite Scan



In "Satellite" item, press [OK] key to see the selected satellite. The system will use DiSEqC1.0 / DiSEqC1.2 / USALS function to search satellite and scan channels. It will scan all the satellite displaying in the bottom box.

2.4 TP List & Scan



- Press ◀ ▶ key, you can switch satellite.
- Press [Red] key to open edit TP menu. User can edit TP info by using ◀ ▶ key manually.
- Press [Green] key, open new TP menu. User can add a new TP by using ◀ ▶ key manually.
- Press [Yellow] key will open dialog box asking you whether confirm to delete current TP. When select "Yes", you will delete the channel which highlight focus on. When select "No", it will cancel the operation.

- Press [Blue] key will display a dialogue box. You can select "Scan Option, Scan Channel, Network Search" items, and press [OK] to begin to TP Scan.

3. Edit Channel



Press the [OK] or ▶ key to enter Edit Channel menu and press ▲ ▼ key to select menu items and press ◀ key or [Exit] key to go back to main menu.

3.1 TV Channel List



- You can move highlight by press ▲▼ key and press [OK] key to preview the current highlighted program in the right side preview window.
- You can press ▲▼ key to implement the Page Up/Page Down function.
- You can use ◀▶ key to switch “Program Group”.
- You can press [Menu] or [Exit] keys to go back to “Edit Channel” menu.
- Press color key can implement the corresponding function in “Channel List”.

3.1.1 Favorite



- Pressing [FAV] key, then pressing [OK] key can open the “Favorite” window like above
- You can move highlight between 8 favorite groups by pressing [Channel Up/Channel Down] key and press [OK] key to make a favorite mark in the left side of the selected Favorite group.
- Pressing [OK] key on the marked Favorite group can cancel the exist favorite mark.

- After marking, pressing [Exit] key can back to “TV Channel List”, there will show a favorite mark beside the marked channel.

3.1.2 Lock



- Press [Red] key can enter lock mode and press ▲▼ key to move the highlight and press [OK] key, it will display a dialogue to ask you to input password. The default password is “0000”. If you input the correct password you can see a “lock mark” in the right side of the highlighted channel.
- After save and exit menu, STB will request you to input the password while you want to watch the locked channel.

3.1.3 Skip



- Press [Green] key can enter skip mode and press ▲ ▼ key to move the highlight and press [OK] to make a "skip mark" in the right side of the highlighted channel.
- After save and exit menu, the channel will be skip while user change channel in the full screen.

3.1.4 Move



- Press [Yellow] key, then press ▲ ▼ key to move the highlight and press [OK] key to make a mark. There will show a "moving mark" in the right side of the selected channel like above
- You can move the selected channel to the position that you want to place by press ▲ ▼ key And press [OK] key to confirm your decision.

3.1.5 Edit

- Press [Blue] key will open "Edit" menu.
- Press [Exit] can exit "Edit Channel" menu. If you do modification in "Edit Channel" menu, the system will show up a message box to inquire you whether saving or not when exit.

3.1.5.1 Sort



- Press [Red] key can open the "Sort" window like above. There are four kinds of sorting ways. You can press ▲ ▼ key to move highlight and press [OK] key to confirm your selection
- The five kinds of sorting way are:
 1. Name (A-Z): Sorting in Alphabetical Order, ignore "\$" symbol.
 2. Name (Z-A): Sorting in Alphabetical Order, ignore "\$" symbol.

3. FTA: Sort channel through free and scramble sequence. Free channel will in the front of channel list and scramble channel will at the rear of channel list
4. Lock: Accumulated all locked channels and list in the last of TV Channel List.

3.1.5.2 Edit



In "Edit Channel" menu, press [Green], then press ▲▼ key to move the highlight and press [OK] key to open the "Rename" window. It shows the window like above:

- Press [Red] key can switch whether capital or not.
- Press [Green] key can delete the char on the cursor.
- Press [Yellow] key can save the modification.
- Press [Blue] key can cancel the operation.

3.1.5.3 Delete

Press [Blue] key, then press ▲▼ key to move the highlight and press [OK] key to make a delete mark in the right side of the highlighted channel. After save and exit "Edit Channel" menu, the marked channel will be deleted.

3-2 Radio Channel List

Basically, the operation of "Radio Channel List" is same as "TV Channel List", but there is one point different: In "Radio Channel List" mode, there is no video information, so it will always display Radio's logo in the right side preview window.

3-3 Delete All



- Press [Ok] key, it will show up a warning message box to inquire you whether delete all or not.
- If you select "Yes", all channels will be deleted. And if you select "No" or press [Exit] key, you can exit the function directly without save.

4. User Setup

Press the [OK] or ► key to enter User Setup menu.

Press ▲ ▼ key to select menu items and press ◀ key or [Exit] key to go back to main menu.

4.1 Language

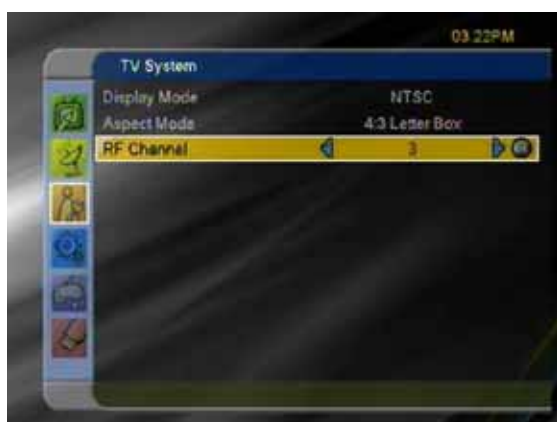


- Language: press ◀ ► key to select menu languages, the selections of languages include: English, French, German, Russian, Arabic, Portuguese, Turkish, Spanish, Polish and Italian.
- First Audio: Some channels have more than one audio language for choosing; by this function you can set the first audio for this channel. If the playing channel has the same audio as the “First Audio” you set, system will play this audio language as default. If the channel hasn't the suited audio language, then the system will compare

automatically with second audio language. The selections of audio languages include: English, French, German, Russian, Arabic, Portuguese, Turkish, Spanish, Polish and Italian.

- Second Audio: If the channel has no correspond audio with “First Audio” but have corresponded audio with “Second Audio”, system will play the second audio language as default. If no audio language corresponds with the “Second Audio”, then the default language of current channel will be played automatically. The selections of audio languages include: English, French, German, Russian, Arabic, Portuguese, Turkish, Spanish, Polish and Italian.

4.2 TV System



- Display Mode
You can select screen-displaying mode by using ◀ ► key
Options : Auto / PAL-M / PAL-N / NTSC.

Note) : If you accidentally select “Pal-N” and the TV screen may rolling continuously, press remote control “mode” button to return “NTSC”.

- Aspect Mode
You can set TV aspect mode (4:3 Letter Box, 16:9, Auto, 4:3 Pan & Scan) by using ◀ ► key

- RF Channel
You can set it by using ◀ ► key (CH3, CH4)

4.3 Local Time Setting



- Time Set Mode

You can select "TDT Auto" or "User Manual" mode by using ◀ ▶ keys.

- GMT Offset

This item is valid only when you select "TDT Auto" mode.

You can press ◀ ▶ keys to switch "GMT" Offset value, and the range is "-12:00 ~ +12:00", increase each half hour progressively.

- Summer Time

This item is only valid when you select "TDT Auto" mode. When "Summer Time" is "On", it will add one hour to the time.

- "Date" and "Time"

These items are valid only when the setting of "GMT Usage" is "Off". You can press ◀ ▶ keys to moving highlight and use number keys to input directly.

- If the current channel provides the correct time information, you will see the current time while you enter "Time" menu. If the channel doesn't provide time information, you have to input the date and time information manually.
- Press [Exit] key to draw back from "Time" menu.

4.4 Timer Setting



- You can press ▲ ▼ key to select a timer, then press [enter] key to open timer menu.

- Current time information will display on the first column; if the current time is incorrect, please modify the time information in "Time" item.

- Timer Mode: There are several modes for Timer to setting, include Off, Once, Daily

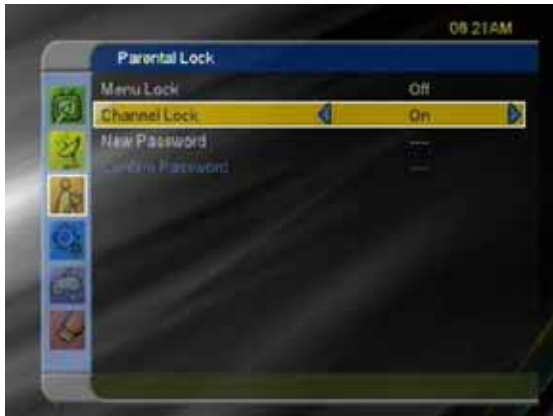
- Wakeup Channel: press [OK] key to enter channel list and select channel that you want to setting.

- Wakeup Date: use number keys to input your wakeup date.

- On Time: use number keys to input your wakeup time. Once the time's up, no matter what the system is in standby mode or in playing mode, the system will automatically switch to the channel you want and start to play.

- Duration: After you set a time for "Duration" item, once the time's up, the system will automatically switch to standby mode. If you want not work this function, set the duration is 00:00.
- Move the highlight to "Save" button and press [OK] key to save timer. Select "Cancel" or press [Exit] key to cancel the operation.

4.5 Parental Lock



- After selecting parental lock and entering the correct password, the screen as shown in the middle appears. The default password is "0000".
- Menu Lock determining that when users wish to enter "Edit Channel/Installation/Tools" menu, whether have to input Password or not. If the setting of "Menu Lock" is "Yes" which means user have to key in password, set "No" means unlock.

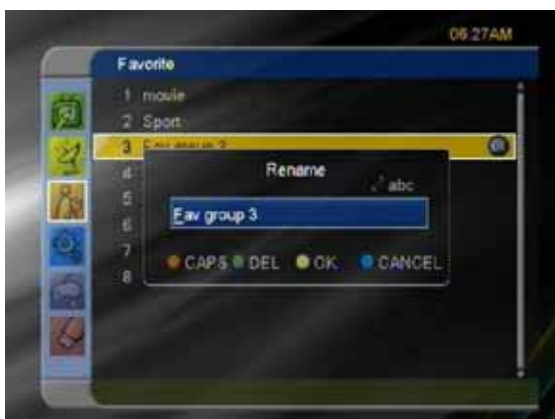
- Channel Lock determining that when users wish to play the lock channels, whether have to input the password or not. If the setting is "Yes", play the channels with lock mark will show up a dialogue on the screen and ask for the password. If the setting of "Channel Lock" is "No", the Lock function will invalid.
- New Password is used for revising password; you can input the new password in this item by using number keys directly. After you filled in 4 digit numbers, the highlight will auto skip to Confirm Password and ask you to input the new password again. If the password is correct, the screen will show up a message of "Saving Data, Please Wait...". After finish saving and draw back to "System Setup" menu, the revising is complete.
- Press [Exit] key to draw back from the "Parental Lock" menu.

4.6 OSD Setting



You can adjust the OSD timeout, Transparency and Closed Caption by using ◀ ▶ keys.

4.7 Favorite



When press [OK] key, you can rename the favorite group's name. It will display the dialogue.

- Press [Red] key can switch whether capital or not.
- Press [Green] key can delete the character on the cursor.
- Press [Yellow] key can save the modification.
- Press [Blue] key can cancel the operation.

4.8 Other



- LNB Power

If the setting is "On", the receiver will supply power to satellite antenna. If the setting is "Off", the receiver won't supply power to satellite antenna.

- Channel Play type

You can select the "playing channels" as "Free", Scrambled" or "All".

For Example: If you select "Free", in full screen play, all scrambled channels will be skipped when you change channels by using ▲▼ key.

- Press [Exit] to draw back from "Other" menu.

5. System Tools

5.1 Information

Show the information of boot, main, dB code and back ground of STB.



5.2 Factory Setting



Once the Factory setting is selected and chooses “Yes” and type password by pressing 4-digit numeric keys followed by OK key, whole parameters will be changed to the default value written in the factory. If you do not want to continue this mode, press [EXIT] key before you enter password.

Common password is “0000”. In case selected password is forgotten, call Pansat’s dealer to get factory master password.

5.3 STB Data Transfer (Receiver to Receiver)



- Connect Null Modem RS 232 Cable (Pin #2 & #3 twisted) between master and slave receiver.
- Hook up the master receiver to the TV and select transfer mode.
- Turn on the slave receiver power.
- Move highlight to “Start” on master receiver and press [OK] key to start upgrade.
- Press [Exit] key to save the parameters and draw back.

Warning! Do not disturb data transfer by touching any Remote button, RS232 Cable, IF Cable, RCA Cable etc. during data transfer period until “Please wait for saving” message disappeared. Interruption of data transfer could damage the receiver’s Flash memory chip which makes the receiver dead and void warranty.

5.4 Download – USB



- Download - USB Mode has following options:
API_code, ChanData, All Data, All Data + Boot_code, Sat&TP data, Background, Boot_code and Upload(All Data Backup).
- User need put the upgrade file with under root of USB memory stick. When users switch to the Download - USB mode, “File” will show the corresponding file
- Select the mode and download file, then you can start download by USB.

5.5 Media Player



Media Play List will be served when USB plug in.

You can preview the picture at the top right corner if the scroll bar is on the picture files (JPG, BMP), and show the logo when at OGG file. Move scroll bar when press ▲▼ key, page up or down by page key. Go into sub-directory when press ok key in the file directory, play the selected file when scroll bar is on the file, automatic return USB menu after play is over.

Color key operation:

[Green] key:

put the file selected by scroll bar to play list when press Green Key, in the meanwhile show "Add to Play List", display disappear after about one second, the file will be added into OGG play list if it is one OGG file, to Image play file for one Image file.

[Blue] Key:

All the Image files in current directory are added into Image play list by Blue key, and screen display "Add to Play List", display will disappear after one second.

Music play operation

If you select music, and OGG play list menu is activated:

[Green] key:

Change play mode by Green Key, and play mode include: Sequential/Random/Single repeat/all repeat.

[Blue] Key:

Delete all the file by blue Key, but there is one remind "are you sure" before practical operation, if select Yes, all file will be deleted, and close the Play list window

After begin to play OGG, it will show the OGG info bar as the above picture. Move the highlight to "PAUSE/PLAY" icon and press OK key to pause. Press again to play. Move the highlight to "STOP" icon and press OK key to stop and time return to 00:00. Move the highlight to "PREV" icon and press OK key to jump to the beginning of file list if play is over 3 seconds; or jump to previous file if play less than 3 seconds. Move the highlight to "NEXT" icon and press OK key to go to the next file. Move the highlight to "FORWARD" icon and press OK key to forward 20S. Move the highlight to "BACKWARD" icon and press OK key to back 20S. Jump to beginning or end if less than 20S to the beginning or end of music file. Return to USB file List when play is over or press Exit key.

Image view operation

[Blue] Key:

Press Blue Key, will delete all image files in play list, but system will remind you " Are you sure? " before practical operation, if you select Yes, all file will be deleted and Play list window will be closed.

[Green] key:

Press Green Key will show Setup Menu, please see the below setup menu:

- Size (Screen) select:
- Real : show the real size if the image size less than full screen size, but only partial image, the image is shown from Left Top corner, don't show for over part.
- Full : Full screen display and show real size if the image is less than screen.
- Menu Operation:

(1) Setup option

Press up/down key to move scroll bar, and switch option by Left/Right key, all option please see the below table:

Item	Option	Default
Size	Full/Real	Full
Time	0~10Sec.	2
Repeat	Off/On	Off

(2) Save/Exit

Move scroll bar to Save icon, press OK for file save, select Exit and press OK, exit without save.

(3) Remark

When slide show image file list, press left or right key to go to previous/next image quickly.

6. Game

When you enter "Game" menu, you will see Games include Tetris, Othello and Sudoku.

6.1 Tetris

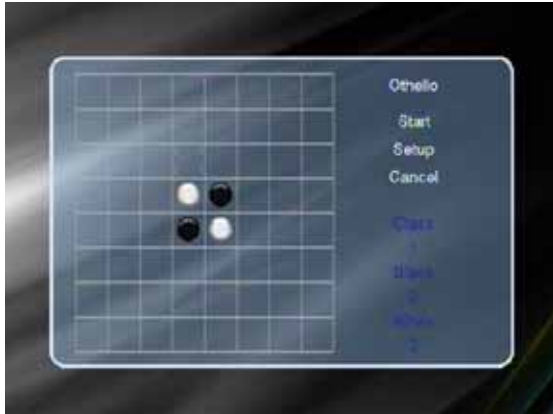


- Moving highlight to "Setup" and press ◀ ▶ key to select the game level (speed).
- Moving highlight to "Start" and press [OK] key to start the game.
- Moving highlight to [Cancel] keys and press [OK] key to draw back from the game.
- Start on the game:

◀ ▶ Move shape left or right

- ▲ Rotate clockwise
- ▼ Faster drop
- [OK] Pause/Play the game
- [Exit] Quit game

6.2 Othello



- Moving highlight to "Setup" and press ◀ ▶ keys to select the game level (degree of difficulty).
- Moving highlight to "Start" and press [OK] key to start the game.
- Moving highlight to [Cancel] key and press [OK] key to draw back from the game.
- Start on the game:

- ◀ ▶ ▲ ▼ use these arrow keys to guide chessman.
- [OK] set chessman.
- [Exit] Quit game

6.3 Sudoku



7. USB

You can find information for HDD and PVR setting in this USB menu.

7.1 Record Manager



You can play recorded contents as follows ;

- Press [Play] key to preview.
- Press [OK] to play the recorder in full screen..
- Press [Pause] key to pause.
- Press [Pause] key repeatedly to realize the step function.
- Press [FF] / [FB] key to fast forward or fast backward x2 x4 x8 x16 x24.
- Press [Slow Forward] / [Slow Backward] key to slow forward or slow backward x1/2 x1/4 x1/8.

7.2 HDD Information



You can enter to this menu to confirm HDD information

7.3 HDD Format



You can format HDD in this menu as above picture.

7.4 PVR Setting



7.4.1 Timeshift



You can use "Timeshift" function in this menu. The option is "On/Off".

If you set timeshift "On", it will record the current channel you watch automatically. Then you can press [Pause] / [Fast Backward] / [Slow Backward] key to watch the previous program. If timeshift is "Off", this function doesn't work. You can press [info] key to confirm recording status.

7.4.2 Jump



You can enter "Jump" menu. The option is "30 second, 1 min, 5 min, 10 min, 30 min". When you watch the HDD record program, press [PREV] / [NEXT] key to jump the step that user set.

7.5 USB DISK STATUS



You can find HDD DISK STATUS and can play it in full screen by using [OK] key.

7.6 USB Port



You can select one of Front or Rear USB port in this menu by using ◀ ▶ keys.

8. Channel List



- You can see the channel list as shown in the above figure by pressing OK key
- To watch another channel, move the cursor to the channel you want by using ▲ ▼ PG↑ PG↓ and press [OK] key
- If favorite channels are saved, the list is changed from channel list TV to favorite list.
- Pressing [TV/RADIO] key changed list Radio, you can exit from the list menu by pressing [EXIT] key.

9. Program Guide



- The title and start time of the program is shown as in the right figure after pressing [**EPG**] key.
- Select the particular channel. The channel will be changed.
- If you want to watch TV with full screen, Press EXIT.

10. Audio change



- In multilingual program, favorite language is selected by pressing [**AUDIO**] key and ▲▼ key
- Audio mode (L-left, R-right, L/R-stereo) can be changed by pressing [**AUDIO**] key and ◀▶ key.

11. Multi Pictures



- Press  and select the Multi Picture mode that you want.
- Move the cursor and select one picture to play

12. Recall the Favorite channel



- Press **[FAV]** key to recall a stored favorite channel.
- Favorite channel is programmed and stored in the Favorite Edit menu.

3. Optional Items

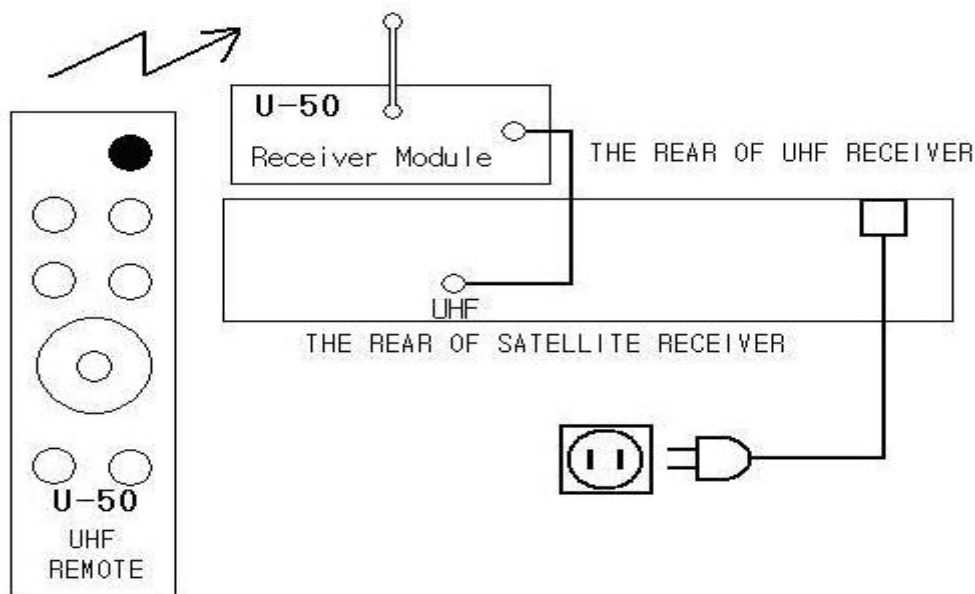
3.1 UHF Remote Control Kit (Optional)

3.1 KIT LIST

1. UHF Receiver Module(U-50)
2. UHF Remote Control(U-50)
3. Battery(AAA Type)-2pcs

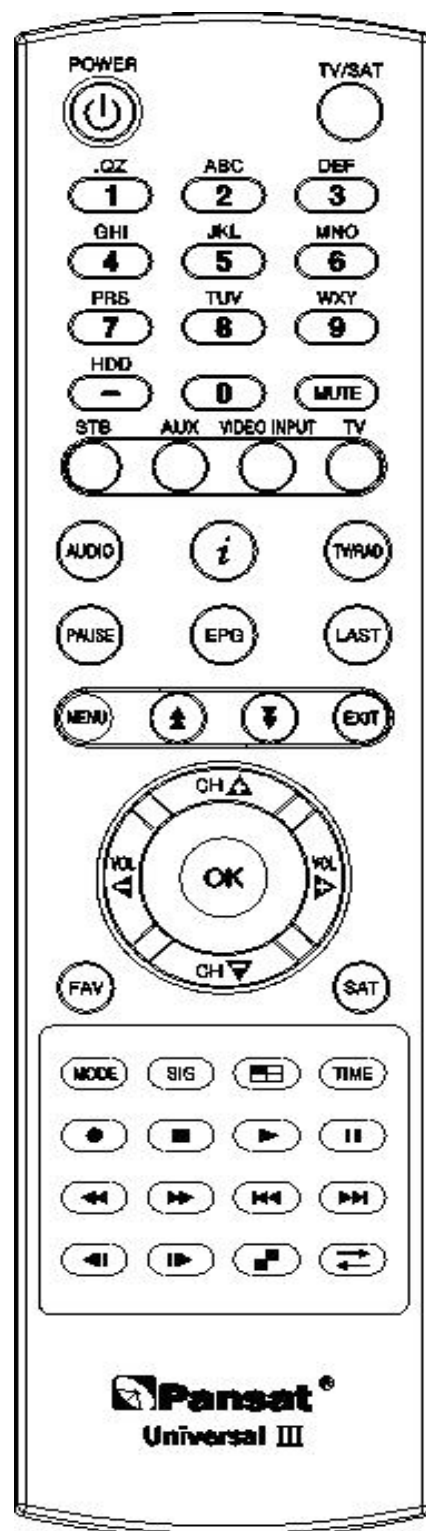
3.2 INSTALLATION

1. Take off the AC power plug of the Satellite Receiver from the wall socket.
2. Connect the UHF Receiver Module to the UHF on the rear of the Satellite Receiver.
3. Plug the AC power cord and turn on the receiver.
4. Use UHF Remote Controller.



3.2 Universal III Remote Control (Optional)

Key	Function
	Turns the equipment on/off
TV/SAT	Toggles between TV & SAT operation
0~9 	Changes channel directly. Controls the numerical operation. Input the alphabet in the name edit screen
HDD	Enter Hard Disk menu
Mute	Select mute mode
STB	Select STB mode
AUX	Select Aux mode
Video Input	Select Video Input mode
TV	Select TV mode
Audio	Select audio mode
i	Shows channel information
TV/RAD	Toggles between TV and Radio operation
PAUSE	Holds the picture or release the pause
EPG	Shows program information
LAST	Returns to previous program
MENU	Enters main menu screen. Or exits menu screen
	Execute page up function in the menu
	Execute page down function in the menu
EXIT	Moves to upper menu
	Channel up/down Moves the cursor upward/downward in the menu screen
OK	Shows Channel list. Confirms selection
VOL 	Volume down/up Change the value of a selected line
MODE	Select video resolution (480, 720, 1080 i)
SIG	Shows signal / quality level
	Multi Picture (Max 9 CH)
TIME	Shows current Time



Operating Principle

- Select an item by using up and down key and change the value of the highlighted (selected) item by using keys shown on the screen. Press OK to enter to the sub-menu if there is no instruction marks on the screen.
- The item is automatically stored and moved the upper menu by pressing the 'EXIT' key
- You can return to normal mode at any time by pressing the menu key from the menu mode

Universal Remote Interface Programming

A) Manual Code Input Method

1. Turn the TV set power on.
2. Press remote **TV** button for 5 seconds until TV button LED red light on.
3. While LED red light on (within 10 seconds), aim remote to the TV set and enter 3 digit code in the list.
If the code is a matched one, red light will flash 3 times and the TV set power will be turned off automatically. If red light does not flash, try another 3 digit code one by one.
4. For other AUX products, follow same as above steps.

B) Automatic Code Search Method

1. Turn the TV set power on.
2. Press remote TV button for 5 seconds until TV button LED light on.
3. While LED red light on (within 10 seconds), aim remote to the TV set and press and release **UP(▲)** button and wait 3 seconds. If auto search code is a matched one, red light will flash 3 times and the TV set power will be turned off automatically.
If no response within 3 seconds, press and release **UP(▲)** button again and wait 3 seconds for another code search. Continue this procedure until you get the response.
4. For other AUX products, follow same as above steps.

Custom Code Programming

When the remote control interfering TV (AUX) set at "STB" operation position, program another code among 3 different codes to avoid the problem.

Press **OK** and number **2** (or **3**) button simultaneously about 5 seconds until STB button red light flash 3 times.

<< TV Brand List >>

Brand Name	Setting Number															
ADMIRAL	072	081	160	161	096											
ADVENT	247															
AIKO	103															
AKAI	006	146	248													
ALARON	028															
AMARK	112	143														
AMERICA ACTION	043															
AMPRO	073															
ANAM	043	054	055	056	080	112										
AOC	058	006	004	112												
APEX DIGITAL	015	226														
AUDIOVOX	076	103	043													
BAYSONIC	043															
BELL&HOWELL	072															
BRADFORD	043															
BROKSONIC	096															
CANDLE	006	002	003	004												
CAPEHART	058															
CARVER	164															
CELEBRITY	001															
CETRONIC	043															
CINERAL	103	120														
CITIZEN	006	002	003	004	101	103	143									
CLASSIC	043															
CONCERTO	004															
CONTEC	043	051														
CORONADO	143															
CRAIG	043	054	028													
CROSLEY	164															
CROWN	043	143														
CURTIS MATHES	006	004	101	143	011	072	081	120	164							
CXC	043															
DAEWOO	076	103	055	004	127	143	016	043	044	125	120					
DAYTRON	004	143														
DENON	011															
DUMONT	004	073														
DWIN	161															
DYNASTY	043															
DYNATECH	062															
ELECTROBAND	001															
ELECTROHOME	024	076	143													
EMERSON	005	028	043	048	076	096	155	004	051	143	151	153	154			
FISHER	007	057														
FUJITSU	164	028	198	246												
FUNAI	028	043	052	249												
FUTURETECH	043															
GATEWAY	242															
GE	006	073	144	160	161	004	008	009	034	056	074	091	155	081	120	

<< TV Brand List >>

Brand Name	Setting Number															
GIBRALTER	004	073														
GOLDSTAR	004	106	119	110	112	113	127	143								
GRUNPY	028	043														
HALL MARK	004															
HARLEY DAVIDSON	028															
HARMAN KARDON	164															
HARVARD	043															
HITACHI	163	004	007	009	011	072	010	012	023	075	143	158				
INFINITY	164															
INKEL	129															
INTEQ	073															
JBL	164															
JCB	001															
JCPENNEY	004	006	008	024	030	065	101	143	156	160						
JENSEN	013															
JVC	038	001	034	083	206											
KENWOOD	006	001														
KLOSS	002	059														
KTV	006	043	143	154												
LG	004	106	119	110	112	113	127	143								
LODGENET	072															
LOEWE	207	164														
LOGIK	072															
LUXMAN	004															
LXI	007	015	052	081	160	164										
MAGNAVOX	006	003	004	022	059	060	061	063	064	127	164	094	160	028	250	
MAJESTIC	072															
MARANTZ	164	006														
MATSUI	164															
MATSUSHITA	080															
MEGATRON	004															
MEMOREX	004	007	072	028	096											
METZ	088															
MGA	024	006	004	042												
MIDLAND	073															
MINERVA	088															
MINUTZ	008															
MITSUBISHI	109	024	042	004	040	146	028	081	225							
MOTOROLA	081															
MTC	006	004	062	101												
MULTITECH	043															
NAD	015	025														
NEC	006	134	040	056	007	019	024	237								
NIKEI	043															
NIKKO	103															
NTC	103															
ONKING	043															
ONWA	043															
OPTIMUS	080															
OPTONICA	019	081														
ORION	096	201	202	203	204	205	028									
PANASONIC	034	056	080	164	208	222										
PHILCO	006	003	004	024	056	059	060	063	064	127	143	164				
PHILIPS	164	005	038	093	127	006	003	004	059	210						

<< TV Brand List >>

Brand Name	Setting Number														
PIONEER	023	025	135	176	004	018	006	209	234						
PORTLAND	004	143	103												
PRISM	034														
PROSCAN	144	160	161												
PROTON	004	058	143	171	173	112									
QUASAR	034	056													
RADIO SHACK	004	019	127	143	043										
RCA	160	161	144	156	065	006	004	023	024	056	074	152	081		
REALISTIC	007	019													
RUNCO	072	073													
SAMPO	006	004	058	242											
SAMSUNG	004	101	127	133	143	160	089	105	211	228	229				
SANSEI	120														
SANSUI	096														
SANYO	007	053	057	082	020										
SCOTCH	004														
SCOTT	004	005	028	043	048	143									
SEARS	004	007	015	028	030	057	082	094	143	160	052	164			
SEMIVOX	043														
SEMP	015														
SHARP	081	014	019	028	004	022	143	175							
SIGNATURE	072														
SONY	001	126	139												
SOUNDESIGN	003	004	028	043											
SPECTRICON	112														
SQUAREVIEW	052														
SSS	004	043													
STARLITE	043														
SUPRE MACY	002														
SUPREME	001														
SYLVANIA	006	003	059	060	063	064	127	160	164	044	249				
SYMPHONIC	052	249													
TANDY	081														
TATUNG	056	062													
TECHNICS	034	080													
TECHNOL	ACE	028													
TECHWOOD	004														
TEKNIKA	002	003	004	024	028	043	072	101	143	103	164				
TELERENT	072														
TERA	172														
TMK	004														
TNCI	073														
TOSHIBA	015	030	007	040	062	101									
TOTEVISION	143														
UNIVERSAL	008	009													
VIDEO CONCEPTS	146														
VIDIKRON	174	188	164												
VIDTECH	004														
WARDS	004	064	164	008	009	019	028	060	061	063	072	074	143		
WESTING HOUSE	076														
YAMAHA	004	006													
YORK	004														
YUPITERU	043														
ZENITH	072	073	095	103	011	096									
ZONDA	112														

<< AUX Brand List >>

PVR/DVR

Brand Name	Setting Number						
AT&T	010						
ECHOSTAR	001						
PANASONIC	010						
PHILIPS	002	003	005				
RCA	011						
ReplayTV	010						
Sonic Blue	010						
SONY	004	007					
TIVO	003	004	005	006	007		
TOSHIBA	006						

Receiver/AMP/Tuner

Brand Name	Setting Number						
AIWA	059	060	061	062	063	073	079
CARVER	059						
Harman Kardon	059	072					
JBL	072						
JVC	064						
KENWOOD	065						
LINN	059						
MAGNAVOX	059						
MARANTZ	059						
ONKYO	074						
PANASONIC	075	076					
PHILIPS	059						
PIONEER	071						
RCA	066						
SANSUI	059						
SHERWOOD	078						
SONY	067	068	077				
TECHNICS	075	076					
WARDS	059	071					
YAMAHA	069	070	071				

CD

Brand Name	Setting Number						
ADC	014						
AIWA	019						
AKAI	015						
EMERSON	020						
FISHER	021						
GE	017						
HITACHI	022						
JVC	023						
KENWOOD	074						
MARANTZ	026						
MITSUBISHI	018						
NAKAMICHI	035						
NEC	025						
ONKYO	027						
PANASONIC	028						
PIONEER	029						
RCA	030						
SEARS	016						
SHERWOOD	036						
SONY	031						
TECHNICS	032						
TOSHIBA	034						
YAMAHA	033						

CABLE

Brand Name	Setting Number						
ABC	047	053					
Colour Voice	040	055					
DISHNET	047						
ECHOSTAR	052						
GE	043	048	050				
GEMINI	047						
General Instrument	048						
HITACHI	048						
JERROLD	047	048					
MOTOROLA	047	052					
PHILIPS	041	055					
PIONEER	049	056					
PROSCAN	044	049	051				
RCA	045	052					
SAMSUNG	056						
Scientific Atlanta	037	039	042	046	053	054	057
SIGNATURE	049						
STARCOM	047						
STARGATE	047						
TOCOM	054						
ZENITH	038	058					

4. SPECIFICATION

Satellite Tuner

1RF Input Connector	F-type,IEC169-24
1RF output(loop through out)	F-type,IEC169-24
Frequency Range	950MHz to 2150MHz
Input Level	65 dBm~-25 dBm
LNB Power	14V/19V (500mA Max)
Symbol Rate	1 to 45Msps.(SCPC,MCPC)
DiSEqC	Diseqc 1.2 & USALS Compatible
Band Switch	22KHz tone
Demodulation	QPSK

MPEG transport Stream A/V Decoding

De multiplex	MPEG-2 ISO/IEC 13818-1(MPEG-2 system)
Input stream	Max. 90Mbit/s
Aspect Ratio	4:3(default), 16:9 letterbox
Video Decoding	ISO/IEC 13818-2(MPEG2 vidoe) MP@ML, 720 x480(NTSC),720x576(PAL)
Audio Decoding	ISO/IEC13818-3(MPEG2 audio/MUSICAM)
Video Output	Component(YPbPr),CVBS
Audio Mode	Single Channel /Dual Channel, Stereo, Joint Stereo
Audio Sampling Frequency	16/22.05/24/32/41.1/48 KHz

Microprocessor & Memories

CPU Clock	216MHz
Flash	4 Mbyte
Memory	
SDRAM	32 Mbyte(133MHz)

A/V output

Component Jack	Y, Pb ,Pr
Video RCA	1 output
Audio RCA	2 output(Reft,Right)
Digital Audio	1 coaxial output S/PDIF

RF Modulator

Connector	F type,IEC169-24
Frequency	CH3(61.25MHz) ,CH4(67.25MHz)
TV Standard	NTSC
Output Channel	CH3-4

Front Panel		
	Display	4Digits LED
	8 keys	Power, Channel Down/Up, Volume up/down, Menu, Exit, OK
	USB	USB2.0 1 Host
Data port		
	Connector	9 pin D-sub Type
	Protocol	RS232 Asynchronous
	Data Rate	Max. 19.2Kbps
Rear Panel		
	Tuner	1 input with loop through out
	UHF	Stereo Jack
	4RCA	Video, Audio L, Audio R, SPDIF
	Component Jack	RCA Jack(Y,Pb,Pr)
	USB	1 Host
	RF Modulator	IEC 169-24(Ant IN, TV out)
	Data Port	RS 232
	Power Switch	Rocker Type
	Power cord	Fixed type on the body
Remote Control		
	Type	IR RCU
	Battery	2x1.5V AAA Type
Power Supply		
	Input Voltage	AC 90-250V, 50/60Hz
	Power Consumption	Max. 18 Watts
	Type	SMPS(Switching mode power supply)
Physical Specification		
	Dimension (W x D x H)	260x150x45mm
	Weight	1.5kg
	Accessories	RCU, Battery, User manual

5. TROUBLE SHOOTING

There may be various reasons for the abnormal of the unit. Therefore, if the unit does not work properly, Check the unit according to the procedures shown in the table below.

Problem	Possible causes	Remedy
LED on front panel Does not light	AC Power cord disconnected	Connect power cord properly into the power socket
No Picture or Sound	Wrong connection of the Video/audio output to TV input Terminal	Connect two terminals correctly with component cable, RCA or RF cable
	Wrong connection of antenna cable	Connect the antenna cable Correctly
	Wrong direction of antenna	Adjust the direction of antenna
	No signal or weak signal	Check the cable connections,
	Wrong setting of channels Information in MENU screen	Type the setting value correctly
Black-and-white Screen or V-Hold	Your TV mode is different from broadcasting mode	Use TV of same mode
		Use the NTSC/PAL converter Connection to the receiver and TV
The remote controller is not working	Battery exhausted	Change the batteries
	Fluorescent light interfering with the remote controller	Switch off the light
	Remote controller is incorrectly aimed	Aim the remote control at the receiver
Distorted menu screen	Too high brightness and contrast level of TV set	Adjust brightness and contrast to low level
Not working	Process Down	Remove the power code or AC switch OFF/ON



LIMITED WARRANTY

PANAREX Inc. warrants to the original purchaser that this product shall be free from defects in workmanship and material for two years from the date of original purchase. During this warranty period PANAREX will provide free of charge both parts and labor necessary to correct defects in workmanship or material.

This warranty does not cover damage due to lightning, fire, flood, or other acts of God, damage from accident abnormal conditions, improper use, or faulty installation, unauthorized software/hardware modification or damage by attempts to repair the units other than by the authorized service of PANAREX.

PANAREX's liability under this warranty is limited to servicing or adjusting equipment returned to PANAREX authorized service centers with freight prepaid.

Panarex Electronics

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